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| <p>94-110213/14 ROEHM GMBH A14 E14 (E12) ROHG 92.09.25 *DE 4232194-A1 92.09.25 92DE-4232194 (94.03.31) C08F 2/18, 4/00, 4/40, 20/00 Polymer beads with low residual monomer content - are prep'd. in two step process using water soluble redox system. C94-051007 Addnl. Data: RAUCH H, ARNDT P J, BRUEMMER H, HOERTINGER B</p> | <p>A(3-A3, 9-A, 10-B5) E(10-A4A, 10-A9C, 31-E, 33-C, 35, 35-U4) <u>PREFERRED PROCESS</u> (II) is acryl and methacryl cpds. (III) contains inorganic components, pref.a transition metal cpd. and ammonium persulphate, sodium disulphite and iron (II) sulphate. (III) consists of organic components, pref. t-butyl hydroperoxide and sodium hydroxy methane sulphinic acid.</p> |
| <p>Prepn. of polymer beads (I) by suspension polymerisation of vinyl monomers (II) in water is claimed. The polymerisation is carried out in the presence of known additives necessary for polymerisation in two steps: (1) using conventional monomer soluble polymerisation initiators at 70°C and above and (2) addn. of a water soluble redox initiator system (III) at a temp. of or less than 70°C. <u>USE</u> (1) are useful as raw materials for paint, ion exchange materials and for use in dentistry.</p> | <p><u>EXAMPLE</u> A suspension of polymer beads in water (39% solids content) prep'd. by conventional suspension polymerisation had residual monomer contents in the aq. phase of 0.6 ppm isobutyl methacrylate, less than 0.5 ppm 2-ethylhexyl acrylate and 38,000 ppm 2-hydroxypropylacrylate. After addn. of ammonium peroxide disulphate (24.5g), sodium disulphite (34.3g) and iron (II) sulphate (0.245g) to the suspension (40 kg) at 80°C, the residual monomer contents were less than 0.5ppm isobutyl methacrylate and 2-ethyl hexyl acrylate and less than 10 ppm 2-hydroxy propyl acrylate after 2 hrs. (8pp2370HWDwgNo0/0)</p> |
| <p><u>ADVANTAGE</u> The process produces (I) with a lower residual monomer content than prior art.</p> | <p>DE4232194-A</p> |

13a